



Stormwater Education Programs

Selected
Examples
from
Puget
Sound



PUGET SOUND WATER QUALITY ACTION TEAM
Office of the Governor





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PUGET SOUND WATER QUALITY ACTION TEAM
Office of the Governor

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Introduction



This publication was developed to help cities and counties in the Puget Sound basin develop effective public education and involvement programs about stormwater. The *Puget Sound Water Quality Management Plan* calls on all jurisdictions in the basin to develop such programs. This document highlights 18 local programs currently being implemented. These case studies include examples of programs run by large and small, urban and rural jurisdictions from across the basin. The Puget Sound Water Quality Action Team hopes that elected officials and local agency staff find it useful in deciding how to educate and involve their citizens in issues related to storm and surface water.

Recent research shows that relying on traditional best management practices (BMPs) to protect stream habitat, fish and other aquatic resources from the effects of stormwater is not enough. Public understanding of the issues and public involvement in protecting aquatic resources is needed as well. People's daily actions have a tremendous impact, both positive and negative, on the health of our aquatic resources. An effective stormwater education program can prevent pollutants from entering the stormwater system in the first place by helping to ensure that citizens' actions have a positive impact on the natural environment. An effective program can also help a local government inform its citizens about the use of public funds in tackling stormwater problems and can build support for effective programs.

In developing this publication, a number of common themes emerged among the programs highlighted. Stormwater is broadly defined—most stormwater programs include education and activities related to streams, wetlands and watersheds as well. These programs might be better termed storm and surface water education programs. All of the programs involve citizens in interesting projects to protect streams, wetlands and other natural resources. Activities include planting and salvaging native plants, removing invasive species, monitoring water quality, and conducting biological surveys. Stewardship programs in which citizens adopt a stream, wetland or lake are very popular. Many programs form partnerships with local schools to support environmental education and teacher training. Others work directly with businesses to improve practices and recognize participating businesses through awards programs. Some work with area zoos, aquariums and other interpretive centers and use these facilities as extended classrooms. All of the programs highlight the relationship between stormwater and streams, watersheds and wetlands, and the fish and wildlife found in them.

Effective programs also emphasize local aquatic resources and local problems and solutions. Where the relationship between stormwater management and fish and habitat protection is important, programs include information and exhibits about the life cycles and spawning needs of fish, and actions people can take in their daily lives to protect habitat for fish. Where local wetlands are affected by stormwater, programs include educational activities about wetland plants, wildlife and the functions of wetlands. Where

Stormwater Education Programs

water quality is degraded by stormwater pollution, programs emphasize daily practices to reduce the level of pollutants entering stormwater.

In summary, an effective education program for stormwater:

- promotes understanding of the relationship between stormwater and other watershed systems, including streams, wetlands, marine waters, groundwater and the hydrologic cycle;
- raises awareness of the effects of individual actions on the environment and promotes decisions and practices that will protect the environment;
- involves citizens in interesting, rewarding activities that build personal commitment to environmental protection and that make a measurable difference;
- addresses issues of local importance and gives people a “sense of place;”
- encourages partnerships among citizens, schools, local businesses, non-profit organizations and governments; and
- includes methods to evaluate the program’s effectiveness in reaching its goals.

Public Involvement and Education (PIE) Fund



Some of the projects appearing in this guidebook were sponsored by the Puget Sound Water Quality Action Team's **Public Involvement and Education (PIE) Fund**. At the heart of the PIE Fund is the belief that community-based organizations, businesses, local and tribal governments, and schools can involve and educate people about water quality and Puget Sound's unique biological resources in ways that government agencies alone cannot. Local groups best understand the needs within their own communities and have access to local resources. PIE Fund projects, selected competitively every two years, receive direction, funds, and technical assistance to enable project sponsors to act on local needs. For more information about the PIE Fund, contact the Action Team at 1-800-54-SOUND or visit our website at www.wa.gov/puget_sound/.

PIE Fund projects are noted (**bold with asterix***) throughout this publication. Look for this graphic at the bottom of pages wherever PIE projects are found:



Want to know more? To get more details about a community’s project—PIE or otherwise—get in touch with the contact name listed at the beginning of each project section.

City of Bellevue

Population 105,700



PROGRAM OVERVIEW

Bellevue's *Stream Team* and *Business Partners* are the city's primary tools for stormwater education. The programs combine information on all aspects of the city's surface waters: sewer, drainage, stormwater and drinking water. The city's Environmental Division manages both programs. The Division is guided by the Environmental Services Commission, a voluntary advisory board. The Commission is critical in the city's efforts to inform citizens and build support for the development of program activities and materials.

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EDUCATING THE GENERAL PUBLIC, YOUTH & ELECTED OFFICIALS

Stream Team

- The *Stream Team** program is one of the oldest and most well-developed stormwater education programs around the Sound. It started in 1988. Stormwater issues are integrated with information on watersheds, streams and fish and wildlife habitat.
- The city trains volunteers to survey and assess habitat and monitor salmon populations in local streams. Volunteers also conduct chemical, biological and physical assessments of the streams. Others report sightings of salmon at specific locations at regular intervals.
- Volunteers participate in periodic projects to revegetate areas along streams and to restore in-stream habitat, including the removal of non-native species that crowd out valuable native plants. Technical assistance is available for residents interested in planting native plants in their yards.
- Volunteers stencil city storm drains to discourage illegal dumping of pollutants that degrade receiving waters. Door hangers are used at these events to educate neighborhood residents and businesses about sources of polluted runoff.

General Outreach

- Watershed tours are provided for local elected officials.
- The city sponsors workshops on the life cycles of salmon and habitat protection. Brochures and handouts on water quality are available upon request.
- The city produces a regular newsletter with articles on water quality and a schedule of upcoming events for volunteers.
- The Environment Division works cooperatively with the Parks Department to install educational signs at regional stormwater facilities.



Stormwater Education Programs

School Programs

- *A Tale of Two Lakes* is a local school district curriculum, providing teachers with information and resources for teaching about salmon. Formal teacher training on urban watershed and salmon issues is currently being considered.
- Tours of city stormwater facilities are given to school groups.
- The city contracts with the Pacific Science Center for educational programming at the Mercer Slough Wetlands.

EDUCATING BUSINESSES

Business Partners

- The ***Business Partners**** program kicked off in 1990. It focuses on construction businesses, building maintenance services, automobile-related services, food-related businesses and landscaping businesses. Due to the nature of their primary services, these businesses and their products are considered more likely to pollute stormwater than other kinds of businesses.
- The city offers workshops to businesses, educating them about polluted runoff and alternative practices which would prevent or reduce it.
- City staff offer site visits to businesses.
- Demonstration projects are developed so businesses can see how new management practices can be implemented.
- *A Guide to Water Quality Protection*, a manual for stormwater pollution control, is available to area businesses. Its focus is best management practices for target categories of business.

PARTNERSHIPS

The city's environmental division works cooperatively with the Parks Department as well as the Pacific Science Center. The city offers financial credits to homeowners who retain wetlands on their property.

KEY MESSAGES

- We all need to protect and enhance our local environment.
- Everyone has an impact on surface water, so everyone has a role in protecting it.

SUCCESSFUL APPROACHES

Public education and outreach are crucial to a stormwater program's success. In particular, the citizen advisory committee of the Environmental Services Commission informs citizens and gets support for program activities and materials. Also very important is showing immediate action and results from program funding and communicating this to all interested parties.

FUNDING

Education and outreach activities related to the City of Bellevue's surface water program are funded through a citywide surface water utility established in the 1970s.





PROGRAM OVERVIEW

The City of Bellingham has provided outreach and education on water issues since 1989 and currently dedicates two full-time and one half-time staff person to providing stormwater education. The city takes a comprehensive approach to public education. Activities and materials address the entire water cycle from stormwater runoff, through watersheds, water quality and treatment, to wetlands.

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EDUCATING THE GENERAL PUBLIC

Pledge Program

- Bellingham partners with the Department of Ecology and the non-profit organization RE Sources to offer the *Pledge Program* to local residents. The program encourages members of the community to pledge to make lifestyle changes that improve water quality and reduce harmful impacts to their local watersheds.
- Participants are provided with information on water-friendly alternatives to everyday activities, such as reducing pesticide use and controlling runoff from lawns and driveways. Participants receive a guide book and refrigerator magnets with helpful hints for protecting water quality.
- Participants fill out a checklist of their current practices and pledge to change specific actions.
- Storm-drain stenciling and other activities are also offered.
- Participants are awarded a “pledge plaque.”

EDUCATING YOUTH

Sharing Our Watershed

- All Bellingham schools participate in the *Sharing Our Watershed* program. The program teaches fifth graders about the water cycle, watersheds, and human impacts on water.
- Students participate in pre-trip activities and field trips to the wastewater treatment plant, hatcheries, Whatcom Falls Park and Lake Whatcom, the area’s source for drinking water. Field trips include hands-on activities, such as calculating areas of impervious surface and testing water quality. Participating schools also take watershed tours.
- Students stencil storm drains.
- Students compete in a contest to create public service announcements. Winning announcements are aired on the local television station, KVOS, for one month.

EDUCATING BUSINESSES

- Local businesses receive brochures and handouts on a variety of stormwater issues.

Stormwater Education Programs

- The city installs permanent storm drain stencils at no charge.

KEY MESSAGES

- Don't dump harmful things down storm drains.
- Reduce waste by composting and recycling.
- Use alternative methods of transportation instead of cars.
- Make sure runoff from roofs flows to a permeable surface.

SUCCESSFUL APPROACHES

The city recognizes the *Sharing Our Watershed* program as its most successful outreach and education approach so far.

FUNDING

The City of Bellingham established its outreach and education program in 1989 with a Referendum 39 grant from the state Department of Ecology. Since then, program activities have been funded by a water and sewer utility administered by the city's Public Works Department.

City of Bremerton

Population 38,000



PROGRAM OVERVIEW

Bremerton's stormwater education program focuses on urban issues and highlights actions that residents and businesses can take to reduce nonpoint source pollution. The city has an aggressive combined sewer overflow reduction plan, which emphasizes increasing the use of separate stormwater sewers and removing stormwater originating on private properties from sanitary sewers. Public service announcements, brochures, outreach events, advertisements and contributions to a local newspaper column are major components of the city's stormwater education program.

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EDUCATING THE GENERAL PUBLIC AND YOUTH

Events for the Public

- Each March, Bremerton participates in the annual *Water Festival*, which is coordinated by multiple agencies in Kitsap County. One thousand fourth graders from around the county spend a day learning about water in both classroom and exhibit settings. About 100 community volunteers participate as well.
- Every May, the city also holds their *Annual Public Works and Utilities Open House*. The open house includes displays and demonstrations on the stormwater program, construction projects and system maintenance.
- Staff set up an informational display at the annual Sinclair Inlet Beach Cleanup.

Communication and Media

- Bremerton created the *Utility Customer Response Line* in order to answer questions and solve problems about stormwater. The response line phone number is (360) 478-5920.
- In 1998 and 1999, the city showed multimedia public service announcements at a local movie theatre.
- The *Kitsap Stormwater Consortium* campaign will begin in 2000. It will present messages about stormwater via billboards, brochures, videos and cable TV. Messages will target adults as well as children.
- 1995 Water Quality Consortium materials in local newspapers and on cable TV are used to educate the public about polluted runoff.
- In 1998 the city partnered with the *Sun*, a local newspaper, to print six quarter-page sized advertisements. The *Sun* sponsored three ads, stretching valuable grant funds. A city staff member is currently on the writing team of "Earth, Sea and Sky," a weekly column in the *Sun*. Subjects include stormwater and combined sewer overflows.
- Local cable television stations aired commercials as both paid advertisements and as public service announcements. The commercials are still aired on the local public access channel, BKAT.

Stormwater Education Programs

Combined Sewer Overflows

- The city produced a multi-color brochure titled *Rainy Days in Bremerton* to inform the public about the combined sewer overflow (CSO) program and polluted runoff.
- A new *Cooperative Approach to CSO Reduction* project will use a multi-media approach, including a website, to educate residents about the impacts of stormwater in Bremerton. The program will encourage residents to disconnect roof drains and other stormwater drains from the wastewater collection system in an effort to reduce CSO discharges.

EDUCATING BUSINESSES

- In 1998, Bremerton prepared and hand-delivered information packets to all commercial facilities in the city. The packets contained business-specific information on best management practices for stormwater.
- The city followed up the project with a survey indicating that 56 percent of the businesses found the information to be very useful or at least somewhat useful.
- Bremerton partnered with Kitsap County and the city of Bainbridge Island to fund the production of the *Residential Builder's Guide to Small Site Erosion Control and Stormwater Management*.
- The city sponsored local workshops in cooperation with the *Build-a-Better Kitsap* program and the Kitsap Home Builders Association.

PARTNERSHIPS

Many of the projects discussed above have been carried out with the help of successful partnerships. Partnering between the City of Bremerton and the *Sun* newspaper has allowed the city to contribute stormwater information to a weekly newspaper column. The public service announcements shown in theatres in 1998 and 1999 were made possible through cooperation with the Kitsap County Surface and Stormwater Management program. Bremerton public schools are given a reduced stormwater rate if they offer a related educational curriculum to students.

In 1999, the city worked with Kitsap County, other local cities and the military to develop a stormwater education consortium to help the partners use resources more effectively and present consistent educational messages. Also in 1999, the city worked cooperatively with Kitsap County, the city of Bainbridge Island, the Kitsap Home Builders Association and the *Build-a-Better Kitsap* program to develop the *Residential Builder's Guide to Small Site Erosion Control and Stormwater Management* and to hold local workshops.

KEY MESSAGES

- Individuals and businesses have a role in preventing nonpoint pollution and preserving the environmental quality of our city.
- Preventing pollution is easy—there are simple steps everyone can take to help.

SUCCESSFUL APPROACHES

Bremerton's aggressive CSO control program provides an excellent opportunity to educate residents about stormwater runoff while preventing stormwater on private properties from entering the sanitary system. The city uses local media extensively to educate the public. Partnerships with local agencies and the military are effective and efficient in creating a broad-based audience for public education about stormwater.

FUNDING

Bremerton's stormwater program is funded from a stormwater utility. Approximately \$7,700 is budgeted each year from the utility to fund public education efforts. In addition, from 1997-2000, approximately \$25,000 of stormwater public education funding, including funds for the *Cooperative Approach to CSO Reduction* project, has come from grants under the state Centennial Clean Water Fund.

City of Burlington

Population 5,525



PROGRAM OVERVIEW

The City of Burlington's *Community Education and Outreach Program* is comprehensive and covers many aspects of land use and protection. A top priority for the city is the restoration of Gages Slough, a tributary of the Skagit River. The goal of the Gages Slough education and outreach program is that, over time, every citizen and business use best management practices that will result in improvements to the quality of our environment. Using the Department of Ecology's new wetlands model (the hydrogeomorphic approach), the city developed a solid scientific basis for action and a community-based vision for what can be accomplished over time. Burlington's program relies heavily on volunteers, since the city's planning department and permit center budget only sixty hours of staff time a week to carry out all their duties.

CONTACT:

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EDUCATING THE GENERAL PUBLIC

Neighborhood Action

- Four geographically-based neighborhood planning committees and a citizen's advisory committee meet regularly to steer program activities.
- The city sponsors regular spring and fall neighborhood planning meetings for residents to discuss issues and decide on the program's priorities and upcoming steps. Each meeting includes one specific topic related to Gages Slough and floodplain management plus a general discussion of other issues.
- The city sends educational materials to property owners who have specific issues or problems to deal with and follows up with one-on-one meetings to discuss best management practices tailored to the property owners' individual needs.

General Outreach

- The monthly *Land-Use Bulletin* keeps citizens informed about upcoming meetings and activities.
- The city sponsors stewardship programs, such as plantings at wetland restoration sites and litter clean ups. Annual clean up projects of Gages Slough and the Skagit River shoreline are held during periods of low flows. Residents, service clubs, students and citizens concerned about water quality are involved.
- The city works with the local media to publicize events.
- Periodic classroom and field programs promote environmental values and an understanding of basic urban wetland ecology. Field programs address native species found in wetlands, wetland restoration sites, and the functions and values of wetlands that have been degraded by human activities.
- The city has organized several demonstration projects, including the *Backyard Wetlands Restoration Demonstration Planting Project*, and plans to hold workshops on wetlands

and on organic gardening and planting techniques. Based on information including a study of Gages Slough completed in 1998, the city developed bulletins and checklists for water quality, stormwater outfall pipes, and appropriate timing of plantings. Using these checklists, the city tailors best management practices to each site.

- The city monitors and reports on the success of demonstration projects.
- The city installed interpretative signage with information on wetland functions, habitat characteristics and long-term restoration efforts at public sites.
- The city's building, repair and maintenance of stormwater facilities demonstrates to the public the feasibility of retrofitting existing systems and sites to improve current conditions, wetland functions and water quality. It also gives the city's citizens a chance to see the city's stormwater programs put into action, and a chance to watch the things they have read about in bulletins and heard about at meetings come to life.

SUCCESSFUL APPROACHES

Neighborhood meetings have proven to be a successful approach to educating Burlington's citizens about stormwater, land use and other issues. The city's monthly land use bulletin and semi-annual newsletter are also effective tools for informing the public about the environment.

PARTNERSHIPS

The city partners with the volunteer Parks Board, a small citizen advisory group; the Citizen's Advisory Committee for Gages Slough and the Skagit River Shoreline; the private non-profit Burlington Parks Foundation; local service clubs; and individual citizens. The city also works with the state Department of Ecology to educate landowners about best management practices to control runoff from residential, agricultural and industrial lands.

FUNDING

A citywide drainage utility funds capital improvement projects. General funds, grants and private funds, including donations from community service clubs, help pay for maintenance, education and other activities. A Coastal Zone Management Grant helped fund the development of the wetlands model.

Town of Carbonado

Population 630



PROGRAM OVERVIEW

The Town of Carbonado has been educating its citizens and youth since February 1996 to be “stormwater smart.” One part-time staff person coordinates activities.

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EDUCATING THE GENERAL PUBLIC

- Printed brochures and handouts are given to residents as they apply for building permits or upon request. One brochure describes non-toxic and less toxic alternative products for the home. A second brochure addresses home remodeling. One suggested practice is to use wood rather than concrete for decks, to allow for infiltration and decrease runoff.
- The town uses its annual spring cleanup announcement to inform residents about stormwater concerns. Suggestions are offered for car maintenance, fixing oil leaks and directing water used for car washing to a vegetated area rather than to a storm drain.

EDUCATING YOUTH

- Town staff give presentations on water resources and stormwater to local schools.
- Local students and staff stencil storm drains as part of a summer youth program run by the school district.

SUCCESSFUL APPROACHES

Youth education has been the most successful approach because students are eager to be earth smart.

KEY MESSAGES

- Educate children; keep educating ourselves.
- Don’t dump waste down drains.

FUNDING

Stormwater materials and activities are funded through the Town of Carbonado’s stormwater utility.

City of Federal Way

Population 76,820



PROGRAM OVERVIEW

The City of Federal Way's Storm and Surface Water Management Department provides outreach and education to schools, citizens, community groups and businesses. Started in 1992, the program provides information and involvement opportunities. Wetlands, streams, stormwater and other water-related subjects are part of the education and outreach program. Partnerships are emphasized in order to enhance activities and supplement limited budget and staff. One full-time staff person is dedicated to education and outreach. Other city staff lend a hand when needed.

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EDUCATING THE GENERAL PUBLIC

- Staff spend a significant amount of time working with individual citizens and community groups. For example, the city helps sponsor Boy Scout and Eagle Scout projects, holds car wash events, provides materials to stencil storm drains and training about how to do it, and provides training on monitoring for volunteers. The city also works with AmeriCorps and school volunteers.
- The city and volunteers have removed culverts and revegetated portions of West Hylebos Creek. Advertisements in the local paper and promotional spots on local cable access television encourage volunteers to get involved in local projects.
- The city distributes educational brochures, handouts and handbooks, such as the *Puget Sound Shoreline Stewardship Guidebook* developed by the Puget Sound Water Quality Action Team, to the public through mass mailings and upon request.
- Every resident of the city receives a newsletter with articles about environmental issues, rainfall data and local events.
- At regional stormwater detention facilities, the city installed signs describing each facility's role in controlling peak stormwater flows, treating runoff and protecting fish, streams and wetlands.

EDUCATING YOUTH

- The *Lakota Adopt-A-Stream* program, sponsored by Decatur High School, is a cooperative program that was started with a grant from the U.S. Fish and Wildlife Service. The grant allowed the city to train teachers, buy monitoring equipment and take students to streams where they could monitor water quality and learn about stream systems. The city continues to use this equipment in its ongoing *Adopt-A-Stream* program activities.

Stormwater Education Programs

- Students monitor water quality, macroinvertebrates and physical characteristics of stream channels and riparian zones. Students also identify future projects within the watershed, such as locations to stencil storm drains.
- The city sponsors stream cleaning days for students and other volunteers.

EDUCATING BUSINESSES

- The city has an ongoing inspection and maintenance program for all local businesses.
- Staff conduct site visits to businesses at which they provide information to owners and/or managers about best management practices to protect water quality.
- The city also has a dedicated telephone line for questions and complaints about water quality from businesses and other community members.

PARTNERSHIPS

The City of Federal Way and the Puyallup Watershed Council bring watershed residents together to collaborate on finding solutions to local problems resulting from stormwater runoff. City, state and federal agencies, environmental groups, citizens and tribal governments participate on the Council.

SUCCESSFUL APPROACHES

Staff credit community partnerships for the city's success in reaching many audiences. The *Adopt-A-Stream* program has been particularly successful in providing an opportunity for students to apply their knowledge to hands-on activities.

FUNDING

Educational activities and materials are funded through a citywide stormwater utility and from a variety of grants.

Jefferson County

Population 26,500



PROGRAM OVERVIEW

Jefferson County contracts with Washington State University (WSU) Cooperative Extension to provide water quality-related education and outreach to its residents as a part of the Regional Water Quality Educators under the *Puget Sound Water Quality Management Plan*. Jefferson County WSU Cooperative Extension runs three education programs related to stormwater management. Program activities are guided with the help of local community advisory committees.

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EDUCATING THE GENERAL PUBLIC

Master Gardeners and Water Watchers

- The *Master Gardeners* program reaches a broad audience by educating the public about water quality in the context of gardening. Participants receive information on the proper use of pesticides and fertilizers and their non-toxic alternatives, uses for native plants, erosion management and other ways to protect surface waters.
- *Master Gardeners* participants donate service hours to the community in exchange for their training. Participants train other volunteers and staff informational booths at local events.
- *Water Watchers** is similar to *Master Gardeners* in that it enlists participants to contribute community service hours. *Water Watchers* trains volunteers on a broader range of water quality issues.
- In addition to these programs, Jefferson County WSU Cooperative Extension water quality educators give presentations and provide technical assistance to the community, and participate in numerous community events.

EDUCATING BUSINESSES

With a Water View

- *With a Water View** is a two-day classroom course for realtors and real estate appraisers. The goal of the program is to educate realtors and appraisers about conditions or factors that can affect property and property values.
- The curriculum covers subjects such as stormwater management, nonpoint source pollution, erosion control and the natural environment. It also focuses on specific issues such as salmon and streams, and how both can be affected by stormwater.
- Participants receive clock hours and continuing education credits.



Stormwater Education Programs

KEY MESSAGES

- Everyone has an impact on the quality of our water.
- Everyone can help protect the quality of our water.
- All stormwater runoff carries with it any contaminants that we use.

SUCCESSFUL APPROACHES

With a Water View, Master Gardeners and Water Watchers are successful in reaching a variety of audiences because they empower people with information. This information is later used by participants and shared with friends and families who, in turn, use it and share it with others. The *Master Gardeners* program is particularly successful because it involves homeowners and has directly reduced the use of pesticides and herbicides.

FUNDING

The Jefferson County Cooperative Extension office is funded by Washington State University, Jefferson County, and through direct appropriation from the state legislature to implement the *Puget Sound Water Quality Management Plan*. Additional funding comes from grants. All WSU water quality educators are faculty members of WSU.

King County

Population 1,665,800



PROGRAM OVERVIEW

King County has an extensive stormwater education and outreach program. The program started in 1992. The county's program engages volunteers in stream restoration projects, recognizes businesses for reducing waste and recycling, keeps pollutants out of waterways, provides presentations in schools on water quality, runs the *Salmon Speakers' Bureau* and provides grants to community groups. The program addresses a variety of topics including watersheds, wetlands, salmon, waste reduction, recycling and stormwater management. Several full-time and part-time staff within the county's Department of Natural Resources are dedicated to the program.

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EDUCATING THE GENERAL PUBLIC, YOUTH & ELECTED OFFICIALS

- The *Habitat Partners* program involves volunteers in maintaining restoration sites following initial plantings at these sites. This work includes controlling invasive weeds, planting native trees and shrubs and monitoring wildlife. The county provides a site tour, training and other support to ensure successful projects.
- The *Native Plant Salvage Project* “recycles” plants from sites that are slated for clearing and development. Volunteers learn about native plants and their role in protecting the aquatic ecosystem, maintain the plants once they are moved and care for salvaged plants at a native plant holding facility in Redmond.
- Volunteer *Salmon Watchers* count spawning salmon and identify barriers to fish passage in the Lake Washington, Lake Sammamish and Cedar River watersheds. The project, started in 1995, is sponsored by the Washington Department of Fish and Wildlife, the Bellevue and Redmond *Stream Teams*, King County's Water and Land Resources Division, the Snohomish County Surface Water Management program, the cities of Issaquah, Seattle and Bainbridge Island and the Muckleshoot Indian Tribe.
- The *Wetland-Breeding Amphibian Monitoring Program*, started in 1994, seeks to document the presence or absence of certain species of amphibians over time. Volunteers conduct springtime breeding census surveys in wetlands throughout King County.
- Each year, the county's Water and Land Resources Division contracts consultant services to coordinate the *Storm-Drain Stenciling Program*. In partnership with the county, the consultant works with schools and youth groups to raise awareness by stenciling storm drains with the message “Dump No Waste/Drains to Stream.”

Technical Assistance and Communication

- Community groups, schools, business organizations and others interested in learning more about the listing of salmon under the federal Endangered Species Act can schedule

Stormwater Education Programs

- a slide show and presentation with the *Salmon Speakers Bureau*. The presentation covers the federal law and tips for helping recover salmon.
- The county's *Basin Stewards* program assigns staff as basin stewards throughout the county. Basin stewards provide technical assistance to citizens and government agencies on water resource issues within their assigned basin. They respond to specific citizen concerns, help develop and carry out basin management plans, coordinate volunteers, provide education, support monitoring activities and coordinate projects such as stream restoration and enhancement. They also support King County's salmon protection efforts by implementing early action projects, participating in workshops, giving presentations and coordinating with agencies and citizen groups.
 - The county maintains a *Drainage and Water Quality Complaint Investigation Line* (telephone and website) in order to respond to citizens' questions and concerns regarding stormwater runoff and surface water quality problems. County staff respond to complaints on both residential and commercial properties and determine the appropriate response in order to best protect surface, ground and storm water.

Focus on Lakes

- In the *Lakes Stewardship* program, volunteers help monitor the water quality of the county's lakes and, in doing so, help ensure the continued health of the lakes and those who enjoy them.
- Volunteers also help clean up excessive or non-native vegetation from area lakes.
- The county produced *Lakeside Living*, a 23-minute video for lakeside homeowners that offers landscaping tips to protect and enhance lake water quality.
- The county also maintains a website, *Living with Lakes*, that offers lakeside homeowners hints for environmentally friendly landscaping and gardening techniques.

Schools Education Program

- The county has a teacher on staff who gives presentations to area schools on a variety of issues related to water quality protection, watersheds and wetlands.
- The county also runs a new *King County Metro Field Trips Bus* program.

Publications

- Through a grant partnership with the Pomegranate Center for Community Action (based in Issaquah), the county produced a book on environmentally friendly gardening practices titled *The Sammamish Swing and Watershed Waltz*.
- The county publishes a newsletter, *Downstream News*, which reaches 8,500 residents. It contains articles and a calendar of volunteer events.
- The county produced the *Home & Garden Hints for Healthy Streams & Salmon* brochure, which describes things citizens can do to stem water pollution at its source.
- Staff distribute a wide array of color posters and information sheets that help educate citizens on the causes of nonpoint source pollution and give examples of actions to prevent it.

EDUCATING BUSINESSES

- The *EnviroStars* program uses a star-rating system to recognize businesses that properly manage and reduce hazardous waste. After completing an on-site evaluation, the county

provides window decals with two, three, four or five stars to qualified small businesses. The decal allows customers to see how well the business is reducing hazardous waste.

- The county produced *WasteSpec*, a manual of specifications for construction waste reduction, reuse and recycling. The manual provides architects and engineers with model specifications which encourage recycling at job-sites during construction and demolition.
- The *Green Works/Construction Works Public Recognition Program* is a consortium of government agencies in King, Kitsap and Snohomish counties that help organizations design cost-effective waste reduction and recycling programs.

GRANTS PROGRAMS

- The *WaterWorks Water Quality Block Grant Fund* provides up to \$50,000 for community projects that protect or improve watersheds, streams, rivers, lakes, wetlands and marine waters.
- The *Watershed Action Grants Program* awards contracts of up to \$50,000 for community organizations, homeowners' associations, schools and other groups to develop and implement education, community involvement and restoration projects related to salmon habitat, streams, wetlands, lakes, rivers and marine waters.
- The new *Small Change for a Big Difference* program will fund up to \$1,000 per project based on a letter of intent.
- The *Urban Reforestation & Habitat Restoration* program supports projects to reforest urban areas, remove invasive non-native plant species, or provide fish or wildlife habitat.

KEY MESSAGES

- Water is a finite resource.
- We are all connected by the web of life.
- Citizens and governments share responsibility for behaving in ways that protect people and fish.
- King County strives to promote quality regional service, partnerships, stewardship and value for citizen dollars.
- Awareness, Education and Action are the steps to protect and enhance our region's natural resources.

SUCCESSFUL APPROACHES

King County's Water and Land Resources Division volunteer program has been a successful partnership between the county and its citizens. In 1999 alone, 4,109 citizens volunteered 19,367 hours doing hands-on activities to protect and enhance the county's natural resources. Volunteers salvaged native plants and later planted them along local streams and rivers; maintained sites to ensure survival; monitored lakes, aquatic weeds, amphibians and wetlands; counted salmon and stenciled storm drains.

The county successfully conveyed public information through activities including watershed tours and flights, salmon conservation and water quality presentations, public meetings and naturescaping workshops.

Stormwater Education Programs

FUNDING

Many programs are funded through a countywide surface water management fee. Additional funding comes from state and federal governments through programs and agencies such as the state Centennial Clean Water Fund and the Federal Emergency Management Agency.

Kitsap County

Population 229,000



PROGRAM OVERVIEW

Kitsap County's Surface and Storm Water Management Program provides stormwater-related education to Kitsap County citizens, businesses and schools. Through this program, a consortium of county agencies (Kitsap County Public Works, Bremerton-Kitsap County Health District and Kitsap Conservation District) work together to improve the county's water quality through education. Funds from a countywide comprehensive surface water utility are distributed among the agencies. Agencies work cooperatively on issues related to stormwater and on-site sewage management, stream protection and restoration, animal management and shellfish and wetlands protection. Two county staff members are dedicated to educational programs. The *Stream Team* program began in 1996; other education programs were started in 1998.

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 Storm Water Management
 Program
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EDUCATING THE GENERAL PUBLIC AND YOUTH

Stream Team Program

- Kitsap County's *Stream Team* program provides an opportunity for individuals to get involved with their neighbors in protecting the county's valuable stream resources. The program provides action and education projects, fosters a community-wide sense of stream stewardship, and encourages community access to government agency personnel and funding. *Stream Team* volunteers are involved in a variety of stream-related activities.
- Support and coordination (e.g., maps, books, referrals) are provided to individuals and non-profit groups by the *Stream Team* coordinator and other *Stream Team* volunteers.
- Volunteers plant and revegetate stream banks to improve stability and increase shade and food for aquatic insects and salmon.
- Volunteers monitor streams for abundance and diversity of insect life and for water quality parameters.
- Other volunteer activities include stream cleanups and storm drain stenciling.
- Volunteers also attend periodic workshops to learn more about stream-related subjects.

Sound Car Wash Program

- The *Sound Car Wash** program offers an environmentally friendly alternative to traditional fund-raiser car washes. Traditional fund-raisers usually allow wash water to run down the street to the nearest storm drain, increasing water use and degrading streams or bays that receive the runoff. The program was started in 1993 with a Public



Stormwater Education Programs

Education and Involvement Fund contract (a program of the Puget Sound Water Quality Action Team).

- As part of *Sound Car Washes*, the county provides a presentation and educational materials to the community sponsor group and loans them equipment that diverts wash water from storm drains to a sanitary sewer or permeable surface where the water can infiltrate.

SCHOOL PROGRAMS

- County staff visit area schools to talk about the water cycle and nonpoint source pollution. They also provide Geographic Information System maps of the surrounding watershed.
- Students are taken on a tour of the school's stormwater system.
- The county co-hosts the *Kitsap Water Festival*, an annual educational event for approximately 1,000 fourth graders. Students spend the day learning about water from guest speakers, educational entertainment and water-related exhibits.

EDUCATING BUSINESSES

- The county provides education and technical assistance to local businesses and commercial property owners on general stormwater issues, potential pollution sources and individual stormwater systems.
- County inspectors help business owners map their stormwater systems and provide information on maintaining systems.

PARTNERSHIPS

Kitsap County is developing a stormwater consortium with the cities of Bremerton, Poulsbo and Bainbridge Island; the Puget Sound Naval Shipyard; Naval Station Bremerton; the Naval Undersea Warfare Station at Keyport; the Bangor Submarine Base; the Kitsap Conservation District; and the Bremerton-Kitsap County Health District. The goal of the consortium is to assess and increase citizen awareness of nonpoint pollution, educate local residents about the effects of their actions and encourage them to minimize their contribution to pollution problems.

KEY MESSAGES

- Individuals have an impact on the health of stormwater systems.
- Storm drains are connected directly to streams, not to treatment plants.

SUCCESSFUL APPROACHES

According to county staff, part of the county's success can be attributed to the partnerships they have created with surrounding cities and nearby military facilities. The *Sound Car Wash* program has been particularly successful because it supplies a service to the community and provides an educational opportunity to a large and diverse audience at the same time.

FUNDING

The Kitsap County Surface and Storm Water Management Program is funded through a comprehensive surface water utility fee. The fee is charged only to properties in the unincorporated portion of the county.



PROGRAM OVERVIEW

The City of Lacey began providing public education on stormwater issues in 1993. Today, the city teams with the neighboring cities of Olympia and Tumwater and with Thurston County in an innovative interjurisdictional education partnership (*see also descriptions under City of Olympia and Thurston County*). The three cities and the county cooperatively implement a *Stream Team* program. The Lacey Water Resources Department dedicates one full-time staff person for water-related public education and outreach activities, including the *Stream Team* program. An advisory committee meets once a month to guide the program.

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 Water Resources Department
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EDUCATING THE GENERAL PUBLIC

Stream Team

- The *Stream Team** program involves adult and youth volunteers in action projects that protect or enhance local water resources. Information on a variety of water-related subjects, such as wetlands, estuaries, watersheds, stream ecology, biological monitoring and stormwater, is provided to participants during project activities and through additional field classes and networking meetings.
- *Stream Team* project activities include stream and wetland restoration, revegetation and cleanup, storm-drain stenciling, tours of watersheds and wetlands, docent programs, monitoring and booths at community events such as the *Lacey Spring Fun Fair*.
- The city produces a monthly *Stream Team* newsletter.

General Outreach

- The city airs a segment about water resource issues twice a year on the Public Access TV program “Lacey Live,” a monthly talk show addressing activities and issues in Lacey.
- The city produces numerous brochures and handouts, such as *A Guide to Storm Drainage, Water Quality and You*, as well as slide shows and videos.

EDUCATING YOUTH

- Lacey provides education and teacher training to schools in the North Thurston School District through support of *South Sound GREEN** (Global Rivers Environmental Education Network). Students and teachers at participating schools take field trips, have classroom presentations and participate in stream monitoring training and other activities.
- The city offers a resource library, which allows teachers or citizens to borrow curricula, books, videos, monitoring equipment and other materials.



Stormwater Education Programs

EDUCATING ELECTED OFFICIALS

- The city takes elected officials on tours of local watersheds and speaks to them about a variety of issues related to watershed management, water quality and resource protection.

KEY MESSAGES

- Don't dump harmful substances down storm drains.
- Recycle used motor oil.
- Protect habitat.
- Get involved.

SUCCESSFUL APPROACHES

The city's outreach to schools through *South Sound GREEN** has proven very successful. Students are gaining a much more sophisticated understanding of resource protection issues in their community and are taking leadership roles in educating the community.

FUNDING

The City of Lacey funds stormwater education and outreach activities through a citywide stormwater utility.

Mason County

Population 48,300



PROGRAM OVERVIEW

Washington State University (WSU) Cooperative Extension provides water quality-related education and outreach to Mason County residents as part of a regional water quality education program funded under the *Puget Sound Water Quality Management Plan*. WSU water quality educators develop projects and activities with the help of local community advisory committees. The Southwest Puget Sound Council, a non-profit organization, educates residents about recycling and stormwater.

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EDUCATING THE GENERAL PUBLIC

Master Gardeners

- The *Master Gardeners* program reaches a broad audience by educating the public about water quality in the context of gardening. Participants receive information on the proper use of pesticides and fertilizers and their non-toxic alternatives, and uses for native plants, erosion management and other ways to protect surface waters.
- *Master Gardener* participants donate service hours to the community in exchange for their training. Participants train other volunteers and staff informational booths at local events.
- Cooperative Extension sponsors *Garden Gate*, a daily, three-minute radio spot on KMAS—the largest station in the county. The program shares information on general gardening tips, environmentally friendly landscaping, proper use of fertilizers and pesticides, and uses for native plants.

General Outreach

- The county's annual *Stormwater Workshop for Homeowners* covers topics such as controlling runoff from your property, using fertilizers and pesticides properly, using native plants to reduce water use, and creating grassy swales.
- Cooperative Extension gives presentations to the community, holds workshops, provides technical assistance and participates in community events such as Oysterfest and the Mason County Fair.

Southwest Puget Sound Council

- The Southwest Puget Sound Council, a non-profit organization, educates residents about recycling and stormwater. The council works with homeowners and businesses to increase recycling and improve collection of household hazardous waste. It publicizes these programs throughout the community.
- The council plans to develop and distribute a book to homeowners about stormwater issues.

Stormwater Education Programs

EDUCATING BUSINESSES

With a Water View

- ***With a Water View**** is a series of two-day classroom courses for realtors and real estate appraisers. The goal of the program is to educate realtors and appraisers about water resource issues as they relate to property development, residential land use and property values.
- The curriculum covers subjects such as stormwater management, nonpoint source pollution, erosion control and the natural environment. It also focuses on specific issues such as salmon and streams, and how both can be affected by stormwater.
- Participants receive clock hours toward real estate license renewal.

PARTNERSHIPS

Cooperative Extension formed a partnership with the Southwest Puget Sound Watershed Council to provide stormwater education to the community. Water quality educators from WSU Cooperative Extension and Washington Sea Grant collaborate on workshops, field courses, conferences, technical assistance and educational programs under the *Puget Sound Water Quality Management Plan*.

KEY MESSAGES

- We all contribute to water quality degradation, so we all need to make changes in our lives that will lead to water quality improvement.
- We must look at the whole watershed when looking at water issues.

SUCCESSFUL APPROACHES

Individualized workshops on specific topics have been well attended. They are particularly successful because they are carefully tailored to fit the needs of a target audience. Workshop topics have included stormwater, pasture management, landscaping with native plants and on-site sewage system management. The *Garden Gate* radio program has also been successful because it reaches a broad audience with an appropriate targeted message.

FUNDING

The WSU Cooperative Extension–Mason County office receives funding from Washington State University, the U.S. Department of Agriculture and Mason County, and through direct appropriation from the state legislature for implementation of the *Puget Sound Water Quality Management Plan*. Additional funding comes from grants.



City of Olympia

Population 39,070



PROGRAM OVERVIEW

The City of Olympia began providing stormwater education in the early 1990s, consistent with recommendations contained in several comprehensive drainage basin plans, the *Puget Sound Water Quality Management Plan* and the city's comprehensive plan. The primary means for educating the community on storm and surface water issues is a *Stream Team* program run in cooperation with Thurston County and the cities of Lacey and Tumwater (*see descriptions for City of Lacey and Thurston County*). The city dedicates one part-time coordinator to this effort, along with one part-time intern and three seasonal camp instructors. Area college students are eligible for the intern position. Other city programs also provide stormwater education. Staff provide technical assistance to developers, education for youth and general information. The city's Utility Advisory Committee helps guide program activities.

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Cedar Bouta

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 Stream Team Coordinator
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EDUCATING THE GENERAL PUBLIC

Stream Team

- Olympia's ***Stream Team**** program, coordinated regionally with Thurston County and the cities of Lacey and Tumwater, involves adult and youth volunteers in action projects that protect or enhance local streams and wetlands.
- Information on a variety of water-related subjects, such as wetlands, estuaries, watersheds, wildlife, stream ecology, biological monitoring and stormwater, is provided through stewardship opportunities, field classes, networking meetings, training and a quarterly newsletter.
- The *Stream Team* sponsors field classes; networking meetings and training; stream and wetland restoration, revegetation and clean-up events; storm drain stenciling; tours of watersheds and wetlands; docent programs; booths at community events (such as Celebrate Olympia); and monitoring of streams, wetlands, migratory waterbirds and salmon.

EDUCATING YOUTH

- The City of Olympia provides education and outreach to fifth- and sixth-grade students through ***South Sound GREEN**** (Global Rivers Environmental Education Network) and the *Storm and Surface Water School Program*. Students and teachers at participating



Stormwater Education Programs

schools take field trips, have classroom presentations and participate in stream monitoring training and other activities.

- Through the *Storm and Surface Water Schools Program*, the city provides third- through sixth-grade students with classroom learning centers, field trips to Watershed Park and the Black Lake Meadows (North Percival Creek Storm and Surface Water Facility) and in-class presentations. On average, 16 different classes are involved each school year.

General Programs

- The city sponsors *Stream Team Day Camps* during the summer at Priest Point Park. Children work with instructors for three days of fun, education and action. Curricula have been developed specifically for the day camps, and activities are structured to teach children about water quality and the natural world. The two curricula, Forest, Stream and Sound (for 8-10 year olds) and Adventure to Action (for 11-13 year olds) are available to the general public for a nominal fee.
- *Stream Team Day Camps* also provide opportunities for youths aged 14 and older to participate as volunteers.
- The city offers a resource library, which allows teachers or citizens to borrow curricula, books, videos and other materials.
- The Storm and Surface Water Utility sponsors many group and individual projects, such as Eagle Scout field projects, individual research projects for school credit, and an after-school program at a local middle school.

TECHNICAL ASSISTANCE & PUBLIC INFORMATION

- In addition to education programs, the City of Olympia provides technical assistance on stormwater to a variety of audiences. The city is developing a public involvement and education strategy for its *Aquatic Habitat and Land Use Project*. Information is distributed through brochures, pamphlets and community forums.
- The city provides educational materials and technical assistance to homeowners whose properties are affected by flooding.
- Other technical information is made available through the *Impervious Surface Reduction Study*, code enforcement officers, utility inserts and local media.

PARTNERSHIPS

The *Stream Team* program recently partnered with the South Sound YMCA on a Sound Stewards (estuary docents) program made possible with Public Involvement and Education (PIE) funding from the Puget Sound Water Quality Action Team. The program partnered with Thurston County on the Green Cove Creek Stewardship Project. Other agencies and community groups that Olympia often partners with include Washington State University Cooperative Extension's Native Plant Salvage Project, the Washington State Conservation Corps, AmeriCorps, Black Hills Audubon and the Thurston Conservation District.

KEY MESSAGES

- Join the Team, the future belongs to us all!
- Get your feet wet!
- Improve, protect and enhance your community—you can make a difference.

SUCCESSFUL APPROACHES

City of Olympia *Stream Team* staff believe the partnerships they've fostered have been very successful in helping to meet the needs of volunteers. Partnerships allow volunteers to be involved in activities throughout the south Sound, regardless of where they live. The *Stream Team* program strives to provide excellent customer service to its volunteers, which in turn creates a dedicated pool of active citizens and support for broader management issues.

FUNDING

The City of Olympia's stormwater education programs are funded through a citywide stormwater utility. Additional funding comes from grants and donations.

Pierce County

Population 686,800



PROGRAM OVERVIEW

The Pierce County Conservation District educates a diverse audience of residents, students and elected officials on stormwater, wetlands and watershed issues through its *Stream Team* program. The program started in 1994 and offers a range of opportunities for residents to restore salmon streams, monitor water quality, tour a watershed, or plant environmentally-friendly landscapes. Pierce County and five cities partner with the conservation district in this effort and advisory committees help steer projects and events. Three staff administer the program.

CONTACTS:

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EDUCATING THE GENERAL PUBLIC, YOUTH & ELECTED OFFICIALS

Stream Team

- The goal of the *Stream Team** program is to involve volunteers in interesting projects and activities so that they learn about conservation, pass on this knowledge, and protect and restore the quality of the natural environment.
- Two watershed tours are given each year for citizens, students and elected officials. Fall tours often center on salmon returning to area streams and rivers.
- Pierce *Stream Team* volunteers gather water quality samples from area streams as part of Pierce County's National Pollutant Discharge Elimination System permit. Data collected include temperature and levels of nitrates, phosphorus and dissolved oxygen. Volunteers also collect data on the diversity and abundance of aquatic insects.
- Each spring and fall, staff organize fish and wildlife habitat restoration and enhancement events. Volunteers help remove non-native plant species that crowd out valuable, but less aggressive, native plants.
- Training sessions are held each year for volunteers.
- Workshops are held each year on topics such as native plants, backyard conservation, streamside living and ways to attract wildlife.
- Other events include storm-drain stenciling and installing interpretive signs along fish-bearing streams.
- *Stream Team* helps Washington State University Cooperative Extension train volunteers for its *Watershed Stewardship* program for teachers and citizens. Participants agree to serve a number of community hours in exchange for the training and agree to help teach others.



- The program produces a free quarterly newsletter that contains articles and a calendar of *Stream Team* and conservation district events.
- Conservation district staff are available to give presentations to school classes on issues related to stormwater, watersheds and wetlands. Brochures and handouts are also available.
- Slides and videos on wildlife and wetlands are available on loan to schools and community groups.

PARTNERSHIPS

Stream Team is a partnership between the Pierce County Conservation District, Pierce County and the cities of Fife, Puyallup, Sumner, Tacoma and Lakewood.

KEY MESSAGES

- Citizen involvement is key to protecting our environment.
- Water quality can be improved by individual actions.
- Education is fundamental to protecting the environment.
- There is a direct connection between environmental protection and quality of life.

SUCCESSFUL APPROACHES

Pierce County Conservation District staff credit their great volunteers for the success of all their activities and events. The attitude, enthusiasm and hard work of their volunteers *make* the program.

FUNDING

The conservation district's *Stream Team* program receives funding from its six partners. Funding has also been provided by the Washington Conservation Commission and through grants such as the Centennial Clean Water Fund and People for Salmon. The program funds two full-time and one part-time staff members.

City of Port Townsend

Population 8,345



PROGRAM OVERVIEW

The City of Port Townsend began developing a stormwater education program in 1993, with the help of the city's Wetlands and Stormwater Advisory Committee. The committee's recommendations on wetlands and drainage issues are now part of the city's growth management comprehensive plan. The city protects natural drainages to help minimize the effects of stormwater; it has acquired and restored wetlands using stormwater utility fees. The program has one summer intern position and one full-time staff position that dedicates one-quarter of his time to education.

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EDUCATING THE GENERAL PUBLIC AND YOUTH

Froggy Bottoms Project

- Through a contract with the Puget Sound Water Quality Action Team, Port Townsend worked with volunteers to restore a badly degraded wetland and educate the community about the importance of wetlands.
- The restored wetland, known as the ***Froggy Bottoms Stormwater Facility***,* is now more biologically productive. It serves as a wetlands and stormwater interpretive site and helps the city manage drainage from the surrounding developed area.
- Volunteers received six weeks of training on wetlands, plant ecology, plant identification and revegetation. In exchange, volunteers donated 25 hours of time planting and maintaining plants, designing interpretive panels, building bat boxes and monitoring water levels.

Residential Neighborhood Projects

- When the city installs a stormwater facility, such as a detention pond, in a residential neighborhood, community members are encouraged to get involved in the project in order to learn about how stormwater is managed.
- Citizens help plan these *Residential Neighborhood Projects* and they help salvage native plants at the site. They also help with planting and restoration after a facility is built.

School Programs

- The city provides kits for monitoring stormwater to participating classes. Students conduct weekly monitoring of wetlands and learn about plant identification, wetlands and techniques to test water quality.



PARTNERSHIPS

Port Townsend relies heavily on partnerships to reach a variety of audiences. The city works with Washington State University Cooperative Extension on the *With a Water View** program for realtors. Other partners include Jefferson Land Trust, the Olympic Peninsula Chapter of the Washington Native Plant Society, and the Gray Wolf Ranch, a halfway house for young adult men (the men worked with the city on an interpretive kiosk and helped plant wetland vegetation).

KEY MESSAGES

- Protect natural systems to minimize stormwater.
- Preserve wetlands and become aware of how development affects them.
- Learn about your local neighborhood.

SUCCESSFUL APPROACHES

The city believes the community outreach and involvement component of its stormwater program is very successful. Participants in local projects feel more connected to their city and watershed. These connections lead to a strong “sense of place” that helps people to think about their daily practices and the effect they can have on water quality.

FUNDING

The City of Port Townsend devotes a portion of its citywide stormwater utility funds to support education. Additional funding comes from a variety of grants.

Snohomish County

Population 568,100



PROGRAM OVERVIEW

Snohomish County offers citizens, students and businesses a range of educational information and watershed-related activities. Topics include general water quality, wetlands, stormwater issues, governmental processes, permitting and law. By offering this range of activities, the county hopes to cater to citizens with a range of different interests, from those who like to plant a tree and get dirty to those who are more interested in educating others or writing grants. The goal is to get people involved and to bring positive change to the community. One and one-quarter full-time staff coordinate the educational program, which began in 1994.

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EDUCATING THE GENERAL PUBLIC

Watershed Keepers

- **Watershed Keepers**^{*} is an annual nine to 10-week class for the general public. For a fee of \$15-20, participants receive 40 hours of training on a wide range of water-related issues. Training is divided into three main topics: 1) natural processes, geology, fish and the water cycle; 2) land use activities and their effects on water quality and quantity; and 3) solutions and hands-on activities that make a difference. At the end of the training, participants have the opportunity to stay involved in a number of ways.
- Participants can choose from activities such as planting, plant salvaging, fencing, monitoring, teaching at schools, fairs and festivals or helping to raise funds for the program.
- Participants can also provide comment on county land-use laws, policies and decisions.

General Outreach

- The county loans water quality testing kits.
- County staff give presentations to groups and organizations on water-related issues.
- During *Waterweeks*, held each September, the county offers watershed tours, two- to three-hour seminars, called *confluences*, on water-related topics, and training on how to monitor water quality.

EDUCATING TEACHERS AND YOUTH

- *Project WET* (Water Education for Teachers) workshops help teachers learn how to introduce environmental education into their classrooms. The county sponsors three-day workshops for teachers on the WET and Aquatic Wild curricula. The workshops are held in cooperation with the City of Everett, Snohomish County Public Utility District and



Snohomish County Surface Water Management Program. Participating teachers earn clock hours and graduate credits.

- *Water Quality Monitoring Workshops* are introductory workshops that teach about types and sources of nonpoint source pollution. Participants get hands-on experience by using test kits and by sampling insects. They also learn how to interpret and share the data they collect.
- County staff give presentations to local schools about water quality issues.

EDUCATING BUSINESSES

- The county meets with local business people to discuss water quality issues and practices that protect water quality and resources.
- As a result of field observations and surveys of illicit discharges, county staff sometimes find businesses that need more information about operational best management practices (BMPs). Staff will meet with these businesses on site.

PARTNERSHIPS

The county emphasizes the need for partnerships among individuals, community groups and government agencies. Partnerships help to educate and involve more people and increase the use consistent messages.

SUCCESSFUL APPROACHES

Snohomish County program's success is due to its multi-faceted approach. By providing citizens with a variety of opportunities to become involved, a broad audience is reached.

KEY MESSAGES

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has." ~Margaret Mead

FUNDING

Snohomish County's educational programs are funded through a utility, with additional funding from registration fees for classes.

Tacoma Nature Center



PROGRAM OVERVIEW

The Tacoma Nature Center is dedicated to increasing awareness and appreciation of the natural world through educational exhibits, activities and materials. Volunteers and staff offer a variety of programs to Pierce County residents and students on issues related to stormwater, watersheds and wetlands. The center has an 11-member advisory council to guide its activities and works cooperatively with the Pierce County Conservation District *Stream Team* (see Pierce County). The center is located in an urban nature preserve established in 1979. The present interpretive center was completed in 1992.

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EDUCATING THE GENERAL PUBLIC

- Exhibits at the center include hands on, interactive exhibits on wetlands, watersheds and urban wildlife; live animal exhibits; puppets and costumes for children; reference books on plant and animal identification; and nature trails.
- The center sponsors installation of “Welcome to the Snake Lake Watershed” signs along busy arterials.
- Videos are available on wetlands, watersheds and wildlife.

EDUCATING YOUTH

- The center works extensively with area schools. Staff members visit schools and share slides and “biofacts.”
- The center hosts a two-hour field trip for students combined with a visit to Titlow Beach.
- Teachers are provided with resources such as learning trunks, curricula and handouts. Curricula include the *Wetland Wonders* kit, the *Watershed Activity* curriculum, and the *Forest* curriculum kit. Developed by educators for educators, the learning trunks, provide hands on activities, curricula, slides, games and more.

KEY MESSAGES

- All citizens have a role in protecting water quality.
- Personal action and choices have an impact on the environment.
- Everyone lives within a watershed—even urban residents—and our actions affect water quality.

SUCCESSFUL APPROACHES

The development of the *Wetland Wonders* curriculum has proven to be very successful. Teachers check out the trunks on a four-week loan and use the materials in their classrooms. The curriculum helps them to teach students about wetlands, habitats, species and the importance of wetlands to the overall health of the ecosystem. Teacher response has been very positive.

FUNDING

The center operates as an educational facility of the Metropolitan Park District of Tacoma and receives additional support from the Tacoma Nature Center Foundation.

City of Tacoma

Population 186,000



PROGRAM OVERVIEW

The City of Tacoma's Stormwater Utility collaborates with neighboring cities, Pierce County, the Point Defiance Zoo & Aquarium, area schools, businesses and non-profit groups to educate citizens on a range of water-related issues. The Stormwater Utility also works cooperatively with Tacoma's other utilities, including the Sewer and Solid Waste Utilities, Tacoma Power and Tacoma Water, to fund educational programs. Topics include wetlands, watersheds, waste reduction, recycling, and energy and water conservation. The city dedicates one part-time staff person to coordinate the overall program, two full-time staff for community outreach on stormwater, sewer and solid waste and one full-time staff person in the schools. Tacoma Power and Tacoma Water also provide a part-time person for educational activities. The city began providing education in 1988.

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EDUCATING THE GENERAL PUBLIC

- The city's Stormwater Utility partners with the Pierce County Conservation District, Pierce County and the cities of Fife, Puyallup and Sumner on a regional *Stream Team* program. The goal of the program is to involve volunteers in interesting projects and activities so that they learn, share their knowledge and protect and restore the natural environment.
- The *Stream Team* also sponsors a water quality booth at several community events, including the Puyallup Fair. For more information on Pierce County's regional *Stream Team*, see Pierce County.
- The Stormwater Utility partners with Citizens for a Healthy Bay (CHB) and others to provide storm drain stenciling kits to volunteers. CHB stenciled storm drains throughout the Thea Foss watershed during summer 2000, and the city hosted a major stenciling effort in July, 2000 with area businesses.
- The Stormwater Utility developed *Clean Bay Car Wash Kits*, which it loans to non-profit groups for car wash fundraisers. The kits allow participants to divert dirty wash water from storm drains to a sanitary sewer. Participants and customers are given educational handouts as well.
- *The Commencement Bay Environmental Hotline* was established by the Stormwater Utility to allow businesses and the public to call and report water quality problems that might otherwise go unreported. The number is (253) 502-2190.

Publications and Media

- As a result of the Commencement Bay Natural Resources Damage Assessment, the city committed funds to the community for the cleanup of contaminated portions of the bay. It also paid for a 30-minute segment on cable access television to describe the sites in the bay where habitat has been restored.
- The stormwater utility partnered with King County, the State Department of Ecology, and the cities of Bellevue and Seattle to develop water quality videos and posters. The videos, which deal with car maintenance and fertilizer use, can be seen on the municipal television channel. The posters, which address car maintenance, fertilizer use, pet waste and car washing, are distributed throughout the community
- The stormwater utility regularly uses the city’s cable access television channel to educate the public about water quality. Several segments are devoted to water quality, including a discussion of what individuals can do to help protect water quality.

EDUCATING YOUTH

- The city utilities collaborate with Tacoma public schools to fund one full-time liaison who provides environmental education in the schools. Topics covered include water quality, wetlands, watersheds, fish and streams, recycling, waste reduction, energy conservation, hazardous waste and the city’s wastewater treatment plant.
- The liaison also organizes teacher training workshops on Saturdays during the school year. Topics include watersheds, stormwater, wetlands, solid waste, recycling and wastewater.
- Tours of utility sites are also offered.
- The stormwater utility is working with the Point Defiance Zoo & Aquarium to upgrade a laboratory to educate school children about water quality issues. Aquarium staff will provide a curriculum for use within the laboratory. The curriculum, games, puzzles and other materials will focus on the relationship of stormwater to the marine and fresh water environments and on what citizens can do to protect water quality
- Kiosks and displays outside the laboratory will provide information about water issues.
- The stormwater utility helps sponsor *Nature Bowl*, a yearly event held by the Metropolitan Park District of Tacoma. *Nature Bowl* is a competition for fourth and fifth graders to test their knowledge of the environment. Topics include water quality, watersheds and salmon. Teams of students from each class are sent to “the Olympics” to compete against one another to answer questions, identify different types of vegetation and habitat, and use math skills to solve environmental problems.
- All of the utilities also sponsor an *Environmental Van*^{*} that goes to area schools to educate children about water quality and other environmental issues. The van contains a variety of environmental kits on various topics. Teachers can request a particular topic and program staff will take the van to the school and teach a lesson on the topic. Supporting materials are provided.

Stormwater Education Programs

EDUCATING BUSINESSES

- The stormwater utility works with businesses to stencil storm drains.
- Two full-time staff in the source control program provide technical assistance and education to area businesses on ways to protect water quality.
- The city is also completing a stormwater management manual.

KEY MESSAGES

- Stormwater is different than sanitary sewage—it does not go to the sewage treatment plant, but is discharged directly to Puget Sound or to lakes or streams that drain into the Sound.
- Citizens can take action to protect water quality. Better car washing techniques, car maintenance, proper use of fertilizers and pesticides, and clean up and disposal of pet waste all make a difference.

SUCCESSFUL APPROACHES

Partnerships have built strong community support for programs. A wide variety of citizens, agencies and businesses are directly involved in these partnerships. Cooperation among the city's utilities, businesses, the school district, the park district and environmental groups makes programs better and more efficient. The *Stream Team* program is a highly visible countywide program with hundreds of volunteers. It would not exist without the cooperation and funding of several municipalities.

FUNDING

A citywide stormwater utility funds the city's stormwater-related education and outreach programs. The city's other utilities—sanitary, solid waste, water and power—fund portions of the jointly-supported programs. Larson Motors, a local area business, donated the van for the *Environmental Van* program.

Thurston County

Population 199,700



PROGRAM OVERVIEW

The county provides storm and surface water education to adults and youth through several programs, including the local *Stream Team* program (see descriptions for *City of Lacey* and *City of Olympia*), *South Sound GREEN* (Global Rivers Environmental Education Network) and basin-planning activities. The county funds one full-time position and contracts for additional services.

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EDUCATING THE GENERAL PUBLIC

- *Stream Team*,* co-sponsored by Thurston County and the cities of Lacey, Olympia and Tumwater, is a program for volunteers interested in protecting water resources. Educational activities include field classes, volunteer training, and the Salmon Stewards docent program on stream ecology, salmon, macroinvertebrates, wetlands and estuaries. Action projects include storm drain stenciling, stream revegetation and clean-ups.
- A recent publication, *Streamside Livin'*,* was developed with funding from the Public Involvement and Education (PIE) program of the Puget Sound Water Quality Action Team. It was mailed to streamside property owners. *Streamside Livin'* is also available on the web at <http://www.halcyon.com/thurston/waste/stream/>.
- The Storm and Surface Water Program contracts with the county's *Common Sense Gardening* program for workshops and garden tours that teach pesticide reduction.
- Several *Natural Lawn Care* media campaigns have also been carried out by contract.

Basin Planning and Education

- Public involvement and education also occurs during basin planning efforts. Basin residents are mailed brochures and invited to participate in basin tours, action projects* and citizen advisory committees.
- A recommendation in the *Green Cove Creek Basin Plan* was implemented in 1999 under the umbrella of the *Green Cove Creek Stewardship* project. The recommendation called for educating residents about the importance of preserving and restoring forest areas in the basin to prevent stormwater runoff. Activities included basin-wide mail-outs, an Arbor Day tree giveaway, a native plant demonstration site and workshops co-sponsored by the local land trust and the State Department of Natural Resources' forest stewardship program. The county contracted the *Native Plant Salvage Project* to provide a number of the activities for the stewardship project.



Stormwater Education Programs

EDUCATING YOUTH

- Thurston County cosponsors *South Sound GREEN* (Global Rivers Environmental Education Network). Participating teachers are offered field trips, monitoring equipment, training and an opportunity to attend the annual student watershed congress.
- The county provides additional support with classroom presentations on watersheds and salmon, and by loaning videos, a watershed game and classroom sets of *Streamside Livin'*.
- Two resources were also developed in cooperation with other local groups: Water Quality Field Trips in Thurston County and Environmental Education for Thurston County Educators.

KEY MESSAGES

- Water quality: storm drains are connected to surface and ground water. People need to keep soap, oil, pet waste, pesticides, dirt and fertilizers out of storm drains.
- Water quantity: excess stormwater runoff destroys salmon habitat in streams. People throughout the watershed need to prevent runoff by reducing the size of lawns and other impervious surfaces, planting more trees and preserving forested areas.
- Riparian habitat: stream banks need to be planted with native trees and shrubs to prevent erosion, provide shade and contribute organic matter to streams.

SUCCESSFUL APPROACHES

Thurston County finds school outreach to be very successful in reaching a diverse audience because students bring information home and share it with their families and friends. Social marketing techniques such as targeting audiences and using focus groups are also useful. Joining regional media campaigns, such as the natural lawn care campaign, are an efficient use of funds and a way to reduce duplication of effort.

FUNDING

Thurston County's storm and surface water education program is funded through a stormwater utility. One full-time staff position is funded as well as several contracts for services.